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## NOTICE OF ALLOWANCE AND FEE(S) DUE

25944 7590 09/20/2010

OLIFF & BERRIDGE, PLC  
P.O. BOX 320850  
ALEXANDRIA, VA 22320-4850

EXAMINER

BLACKWELL, JAMES H

ART UNIT

PAPER NUMBER

2176

DATE MAILED: 09/20/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/665,794

09/22/2003

Keiko Shiraishi

115031

7273

TITLE OF INVENTION: LINKING INFORMATION MAKING DEVICE, LINKING INFORMATION MAKING METHOD, RECORDING MEDIUM  
HAVING RECORDED A LINKING INFORMATION MAKING PROGRAM, AND DOCUMENT PROCESSING SYSTEM THEREWITH

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/20/2010

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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25944 7590 09/20/2010

**OLIFF & BERRIDGE, PLC**  
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ALEXANDRIA, VA 22320-4850

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## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/665,794 09/22/2003 Keiko Shiraishi 115031 7273

TITLE OF INVENTION: LINKING INFORMATION MAKING DEVICE, LINKING INFORMATION MAKING METHOD, RECORDING MEDIUM HAVING RECORDED A LINKING INFORMATION MAKING PROGRAM, AND DOCUMENT PROCESSING SYSTEM THEREWITH

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 12/20/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
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BLACKWELL, JAMES H 2176 715-763000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,794	09/22/2003	Keiko Shiraishi	115031	7273
25944	7590	09/20/2010	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850			BLACKWELL, JAMES H	
			ART UNIT	PAPER NUMBER
			2176	
DATE MAILED: 09/20/2010				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 228 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 228 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/665,794	SHIRAISHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	James H. Blackwell	2176	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 06/16/2010.
2. ☒ The allowed claim(s) is/are 1-7 and 14-24.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____.</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
|---|---|

/DOUG HUTTON/  
Supervisory Patent Examiner, Art Unit 2176

### **DETAILED ACTION**

This Office Action is in response to an amendment filed 06/16/2010.

Claims 1-7, and 14-24 are pending.

Claims 1-3, 20 and 24 are independent claims.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Vishnu V. Ramaswamy on 08/30/2010.

The following listing of claims will replace all prior versions, and listings of claims.

1. (Currently Amended) A linking information making device comprising:
  - a service search server comprising:
    - a service list acquisition section which acquires a service list expressing respective services each of which execute predetermined processings on document data, the respective services being provided by a plurality of currently-available service processing devices;
    - a client terminal in communication with the service list acquisition section, the client terminal comprising:
      - an interface information acquisition section which acquires, for each of the currently-available services being provided, a respective piece of interface information including a method by which the corresponding predetermined processing is started, and

a linking information making section which makes linking information to be used for linking the predetermined processings based on the interface information which has been acquired by the interface information acquisition section, and transmits the linking information, the linking information including information to be displayed on respective screens of one or more of the currently-available service processing devices and to be selected by a user operating one of the screens when the user instructs to start linking the predetermined processings; and an instruction sheet management server comprising:

a management section which stores the transmitted linking information and further transmits the stored linking information to the one or more of the currently-available service processing devices for displaying on the screen based on a request from the currently- available service processing devices,

wherein the client terminal further comprises a display which displays a first window including a first icon corresponding to first interface information acquired by the interface information acquisition section, a second window including a second icon corresponding to a linking pattern, and a third window including linked first and second icons dragged and dropped from the first and second windows by the user, and

the linking information making section makes the linking information in accordance with the linked first and second icons in the third window and makes the linking information without specifying a service processing device,

the interface information includes a predetermined parameter restriction rule which restricts an input and an output ~~to a particular device~~,

the linking information includes a control structure, a logical operation and an arithmetic operation.

2. (Currently Amended) A linking information making method comprising:

acquiring a service list expressing respective services, which execute predetermined processings of document data, the respective services being provided by currently-available service processing devices;

further acquiring pieces of interface information corresponding to the respective currently-available service processing devices from the respective currently-available service processing devices, the interface information including a method by which the predetermined processing is started; displaying the pieces of interface information;

making linking information to be used for linking the predetermined processings based on the acquired pieces of the interface information, the linking information including information to be displayed on a screen of one or more currently-available

service processing devices and to be selected by a user operating the screen when the user instructs to start the predetermined processings; and

transmitting the linking information to the one or more currently-available service processing devices based on a request from the one or more currently-available service processing devices,

wherein the pieces of interface information are displayed as icons,

the step of making linking information includes (i) linking selected ones of the displayed icons in accordance with a user operation, the user operation including dragging and dropping the selected ones of the icons corresponding to respective pieces of interface information to generate linked icons, and (ii) making the linking information in accordance with the linked icons and without specifying a service processing device,

the interface information further including a predetermined parameter restriction rule which restricts an input and an output ~~to a particular device~~,

the linking information further including a control structure, a logical operation and an arithmetic operation.

3. (Currently Amended) A computer-readable recording medium that stores a program for controlling a computer to execute a processing for making linking information, the program including instructions for controlling the computer to execute:

acquiring a service list expressing respective services, which execute predetermined processings of document data, the respective services being provided by currently-available service processing devices;

further acquiring pieces of interface information corresponding to the respective currently-available service processing devices from the respective currently-available service processing devices, the interface information including a method by which the predetermined processing is started;

displaying the pieces of interface information;

making linking information to be used for linking the predetermined processings based on the acquired pieces of the interface information, the linking information including information to be displayed on a screen of one or more currently-available service processing devices and to be selected by a user operating the screen when the user instructs to start linking the predetermined processings; and

transmitting the linking information to the one or more currently-available service processing devices based on a request from the one or more currently-available service processing devices,

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wherein the pieces of interface information are displayed as icons,  
the step of making linking information includes (i) linking selected ones of the displayed icons in accordance with a user operation, the user operation including dragging and dropping the selected ones of the icons corresponding to respective pieces of interface information to generate linked icons, and (ii) making the linking information in accordance with the linked icons and without specifying a service processing device,  
the interface information further including a predetermined parameter restriction rule which restricts an input and an output ~~to a particular device~~,  
the linking information further including a control structure, a logical operation and an arithmetic operation.

4. (Previously Presented) A document processing system, comprising: the linking information making device according to claim 1 which acquires the service list transmitted from a search device and the pieces of the interface information from the currently-available service processing devices via the search device; and a plurality of currently-available service processing devices which provide services for executing predetermined processings of document data and transmit the pieces of the interface information to the search device, the search device provided with: a service information storage section for storing the pieces of the interface information which have been transmitted from the currently-available service processing devices; a search section for searching services corresponding to services, for which search has been requested, using the pieces of the interface information which have been stored in the service information storage section; and a transmission section which transmits the service list based on the search results of the search section.

5. (Previously Presented) A document processing system according to claim 4, wherein the transmission section of the search device transmits the service list expressing services which are services provided by the currently-available service processing devices and which correspond to services for which search has been requested, to the linking information making device.

6. (Previously Presented) A document processing system according to claim 4, wherein the currently-available service processing devices transmit pieces of input information and pieces of output information on services, service names, and service information location as the interface information.



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7. (Previously Presented) A document processing system according to claim 4, wherein the interface information acquisition section of the linking information making device acquires pieces of service information location for accessing the respective currently- available service processing devices, from the search device, and acquires pieces of interface information from the currently-available service processing devices based on pieces of the acquired service information location.

8-13. (Previously Canceled)

14. (Previously Presented) A linking information making device according to claim 1, wherein the linking information is a file in an XML format.

15. (Previously Presented) A linking information making method according to claim 2, wherein the linking information is a file in an XML format.

16. (Previously Presented) A computer-readable recording medium according to claim 3, wherein the linking information is a file in an XML format.

17. (Previously Presented) The linking information making device according to claim 1, wherein the management section stores a plurality of the linking information as a plurality of workflows.

18. (Previously Presented) The linking information making method according to claim 2, further comprising storing a plurality of the linking information as a plurality of workflows.

19. (Previously Presented) The computer-readable recording medium according to claim 3, further comprising storing a plurality of the linking information as a plurality of workflows.

20. (Currently Amended) A computer-readable recording medium that stores a program for controlling a computer to execute a processing for making linking information, the program including instructions for controlling the computer to execute:

- acquiring, from currently-available service processing devices through a network, pieces of service information expressing different types of processings executed by the currently-available service processing devices on document data;
- displaying the pieces of service information on a display;

making linking information that links the processings to be executed by the currently-available service processing devices as a workflow based on a user operation on the display;

storing a plurality of pieces of the linking information as a plurality of workflows in a storage unit, and transmitting, in response to a requirement from one of the currently-available service processing devices, the plurality of pieces of the stored linking information through the network to the one of the currently-available service processing devices so that a list of the plurality of workflows are displayed on a screen of the one of the currently-available service processing devices for a user selection,

wherein the pieces of service information are displayed as icons,

the user operation on the display includes dragging and dropping icons corresponding to the pieces of service information corresponding to the processings to be executed to generate linked icons, and

the step of making linking information includes making the linking information in accordance with the linked icons and without specifying a service processing device, and

one of the workflows is started based on the user selection,

the user operation includes a predetermined parameter restriction rule which restricts an input and an output to a particular device,

the linking information further including a control structure, a logical operation and an arithmetic operation.

21. (Previously Presented) The computer-readable recording medium according to claim 20, wherein the linking information is a file in an XML format.

22. (Previously Presented) The computer-readable recording medium according to claim 20, wherein the transmitting comprises transmitting the plurality of pieces of the linking information in response to a request from one or more of the currently-available service processing devices.

23. (Previously Presented) The computer-readable recording medium according to claim 20, wherein the service information includes a service list and pieces of interface information corresponding to the respective currently-available service processing devices.

24. (Currently Amended) A document processing system, comprising:

(1) a linking information making device which acquires a service list transmitted from a search device and pieces of interface information, the interface information further including a predetermined parameter restriction rule which restricts an input and an output ~~to a particular device~~, from a plurality of currently-available service processing devices via the search device, the linking information making device comprising:

a service search server comprising:

a service list acquisition section which acquires the service list expressing respective services each of which execute predetermined processings on document data, the respective services being provided by the plurality of currently-available service processing devices;

a client terminal in communication with the service list acquisition section, the client terminal comprising:

an interface information acquisition section which acquires, for each of the services being provided, a respective piece of the interface information including information about a method by which the corresponding predetermined processing is started, and

a linking information making section which makes linking information to be used for linking the predetermined processings based on the interface information which has been acquired by the interface information acquisition section, and transmits the linking information, the linking information including information to be displayed on respective screens of one or more of the currently-available service processing devices and to be selected by a user operating one of the screens when the user instructs to start linking the predetermined processings, the linking information including a control structure, a logical operation and an arithmetic operation; and

an instruction sheet management server comprising:

a management section which stores the transmitted linking information and further transmits the stored linking information to the one or more of the currently-available service processing devices for displaying on the screen based on a request from the currently-available service processing devices,

wherein the client terminal further comprises a display which displays a first window including a first icon corresponding to first interface information acquired by the interface information acquisition section, a second window including a second icon corresponding to a linking pattern, and a third window including linked first and second icons dragged and dropped from the first and second windows by the user, and

the linking information making section makes the linking information in accordance with the linked first and second icons in the third window and makes the linking information without specifying a service processing device;

(2) a linking information management server which saves a plurality of linking information made by the linking information making device;

(3) a client server which includes a GUI displaying a plurality of linking information saved in the linking information management server, selecting one of a plurality of linking information and inputting at least one parameter into selected linking information;

(4) a linking processing server which executes the linking information inputted the parameter; and

(5) a plurality of currently-available service processing devices which provide services for executing processings of document data in accordance with the linking information executed by the linking processing server and transmit the pieces of the interface information to the search device,

the search device provided with:

a service information storage section for storing the pieces of the interface information which have been transmitted from currently-available service processing devices;

a search section for searching services corresponding to services, for which search has been requested, using the pieces of the interface information which have been stored in the service information storage section; and

a transmission section which transmits the service list based on the search results of the search section.

### ***Allowable Subject Matter***

Claims 1-7 and 14-24 are allowed.

***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance: The prior art fails to anticipate, teach or otherwise render obvious the combination of limitations recited in the independent claims.

The invention generally describes means by which a printing workflow is constructed, where the system comprises a number of devices including multi-function devices (e.g., "all-in-one" printers). Each of these devices provides one or more services which are made available to the system. One may then construct and execute a workflow that includes one or more of these services.

The prior art fails to teach the limitations:

*"the linking information making section makes the linking information in accordance with the linked first and second icons in the third window and makes the linking information without specifying a service processing device"*

and

*"the linking information includes a control structure, a logical operation and an arithmetic operation."*

where the "first icon" represents an available service, each of which has associated "interface information," and the "second icon" represents "control structures," "logical operations," and "arithmetic operations." The two icons are then "linked" in a "third window" via "drag-and-drop" operations to form "linking information."

The combination of prior arts teaches a similar graphical programming user interface for generating and executing a printing workflow. However, instead of a "first

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*icon*” representing an available service, “*first icons*” in the prior art combination represent available devices.

Furthermore, the prior art fails to teach the notion of a “*second icon*” that includes a control structure, a logical operation and an arithmetic operation. The prior art combination merely connects devices, represented by “*first icons*” together with a graphical line that helps to visualize portions of a printing pipeline that ends up as a printing job ticket or workflow.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Blackwell whose telephone number is (571)272-4089. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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